

August 29, 2006

**STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAY DESIGN**

CONFERENCE REPORT

PROJECT: Walpole 14540-U

DATE OF CONFERENCE: December 5, 2006

LOCATION OF CONFERENCE: Walpole Town Hall

ATTENDED BY: See Attached

SUBJECT: Walpole Public Informational/Officials Meeting for the NH 123 over Cold River bridge replacement and Drewsville Retaining Wall modification.

NOTES ON CONFERENCE:

Selectmen Aldrich introduced Bob Landry, of NHDOT, who introduced NHDOT and Bensonwood personnel in attendance. He explained that this public informational session was a follow-up meeting to the meeting on June 28, 2006 and was in response to the public's request for further input. He then introduced Tedd Benson of Bensonwood, who explained how he was introduced to the technology his company was presenting. He then introduced engineer Annette Dey.

A. Dey gave a PowerPoint presentation that described the benefits of a "Modern Timber Bridge" and highlighted two projects, one in Fayette, France and one in Koessen, Austria, that are similar to what Bensonwood proposes for the Cold River site. Timber allows some measure of pre-assembly and their proposed bridge incorporates steel beams, glu-lam beams, and steel cables into the truss. The proposed deck is concrete on timber planking. She said that while Bensonwood's only bridge experience is with pedestrian bridges, they have much experience in designing significant structures.

John Hansel spoke and said that he, like many others in attendance at this meeting, did not attend the June 28 meeting because the meeting notice escaped his attention. He praised the NHDOT for their willingness to listen to the community. He spoke positively in regards to a 2-span precast concrete arch option, similar to the previous bridge at this site. He also praised Tedd Benson's design. He then read from a history of the area saying that the first bridge at this location was a covered bridge built in 1781. This bridge burnt in the early 1900s, and the stone arch was soon built to replace it. He opposes the plain butted-box design that NHDOT is pursuing.

Bob Landry explained that there is a public hearing scheduled for January 24, 2007. The public hearing allows NHDOT to negotiate with landowners. NHDOT still desires to build in 2007 because there is an April, 2008 deadline for the use of FEMA funds. An extension of that deadline is possible, but NHDOT would prefer to not need to seek it.

Next, Jason Tremblay discussed the concrete butted-box option. The proposed bridge passes the worst storm that is statistically likely in a 10-year period, known as the Q₁₀, with 4 feet of clearance to the underside of the bridge. Q₅₀, the 50-year storm, rises to half the depth of the bridge members but should not overtop the roadway. The proposed roadway cross-section consists of two 11' lanes with 4'

shoulders. The proposed bridge would be built from nine 4' wide precast concrete boxes, each approximately 100' long. J. Tremblay showed a photo of a similar bridge recently built in Epping, NH and pointed out the smooth underside of the structure.

Questions and Comments:

An attendee asked the anticipated completion date for this project. J. Hansel said that NHDOT told him that there were abutter issues so the project would not be built until 2008. R. Landry said that NHDOT had thought the project would not be able to be built until 2008, but then learned of the FEMA deadline. NHDOT does not want to put the \$1.3 million of FEMA funds in jeopardy, so NHDOT is doing all that is possible to build the project in 2007.

An attendee asked Bensonwood about the cost of the "Modern Timber Bridge." Duncan McElroy, of Bensonwood, said that they are below FEMA's estimated \$1.3 million, including the cost of the abutments, but they do not have a firm estimate at this time. R. Landry added that the \$1.3 million includes costs associated with abutments, as well as some roadway work. He discussed a plan on display at the meeting and explained that areas colored yellow indicate the limits of the proposed roadway. As a follow-up, R. Landry was asked if there would be good estimates at the hearing on January 24, 2007. He answered that our best estimate would be available then. He added that he would like to be able to bid both structure types. (Follow-up: Further discussion, subsequent to the PO/PI meeting, indicates that there are substantial obstacles to being able to bid both options.)

An attendee asked if NHDOT were strongly in favor of either the concrete butted-box or to the precast concrete arch option. The attendee also asked if NHDOT could construct a bridge similar to what Bensonwood proposed. R. Landry responded that the concrete butted-box option was the best design that NHDOT has experience constructing. He added that the 2-span precast concrete arch may not be favorably viewed by resource agencies. The River Restoration group wants 105' of clear bank width, but the pier of the double arch would encroach on this. R. Landry is not convinced that it would be impossible to permit, though. NHDOT will work with all resource agencies to obtain permits for whatever span type is selected. He also said that the timber option presented by Bensonwood is not very similar to a traditional covered bridge and is not likely to have the same maintenance issues that NHDOT associates with a traditional covered bridge. He is concerned about the cost of the Bensonwood proposal and FEMA's likely unwillingness to pay any additional costs associated with that option.

Jerry DiMuro, with the non-profit association Heritage Mills, stated that he suggested a timber bridge at the June meeting. He displayed some pictures of American wooden bridges and said Walpole should seriously consider Bensonwood's design or some other timber design.

Duncan Watson said the NHDOT proposal is boring. He is "wildly enthusiastic" with the Bensonwood proposal. He lives on Cold River Road and finds the current traffic unacceptable.

An attendee who lives on the south side of the Cold River said that there needs to be a traffic plan. The road, which is the current detour, is distressed. He advocated making traffic from the quarry one-way. He supports the NHDOT proposal.

An attendee asked if a timber bridge could be built by the end of 2007. A. Dey said that it could.

An attendee asked if a timber bridge could withstand American truck loads. R. Landry explained that Bensonwood asked NHDOT what loads and widths are required of bridges.

An attendee, who agrees that the NHDOT proposal is boring and wants a nice bridge by the end of 2007, requested a poll to assess the sentiment of the attendees. R. Landry said that NHDOT will not ask for a show of hands and that he wants input from the Selectmen, who are getting input from residents, as well. J. Hansel asked for a show of hands to tell that Walpole wants anything but the concrete butted-box. Some dissension ensued. R. Landry quickly regained control of the meeting. He stated that there is a strong sentiment for a quick replacement and that there is some support for timber. He reiterated that he is not yet comfortable with the cost of the timber alternative.

An attendee asked if the stones from the previous bridge would be reused. R. Landry said that they would not be reused on the superstructure. The attendee then said they would like a bridge that is "feasible for the river" that incorporates the stone as facing.

An attendee asked about the timber alternative's ramifications for long-term maintenance and taxes. R. Landry answered that NHDOT Bureau of Bridge Maintenance personnel were apprehensive when they first heard of a proposal for a timber bridge at this site, but Bensonwood's proposal is not similar to other timber bridges in NH.

An attendee asked Bensonwood personnel about the height of their proposal. R. Landry answered that their bridge would have a 14'-6" vertical opening, similar to the clearances provided beneath a roadway overpass bridge. The attendee believes that a bridge that tall will be an visually unappealing.

An attendee asked about blind spots caused by a covered bridge. R. Landry stated that the Bensonwood proposal is more open than a typical covered bridge, but blind spots would need to be evaluated.

An abutter asked about NHDOT involvement in the project if Bensonwood's proposal were selected. He also expressed doubts regarding the proposed construction schedule, especially considering likely delays due to high water. Tedd Benson said Bensonwood is willing to provide the design and engineering for a new structure. Regarding the schedule, he said that much of the superstructure could be prefabricated at his shop during substructure construction. R. Landry said that allowing for high water, a June start date was reasonable. He pointed out that asphalt plants stay open until November.

An attendee expressed support for anything but the NHDOT proposal. Another attendee stated that the arch is more appropriate at this site.

An attendee questioned the next step in the process, since at the June 2006 meeting NHDOT said the next step was to put a contract out to bid. R. Landry explained that following the June 2006 meeting, the next step was for NHDOT to obtain rights of entry from landowners of adjacent parcels and then to secure bids. However, while trying to obtain rights of entry, it became obvious that a hearing, now scheduled for January, would be necessary.

R. Landry asked the audience if anyone objected to the proposed roadway alignment. An attendee expressed surprise that the horizontal alignment was not significantly improved.

An attendee asked about the process of deciding on a bridge type and if there would be a vote at the hearing. R. Landry explained that the hearing is specifically for the commission to decide on the necessity of the project.

An attendee asked about the lifespan of a concrete butted-box and about redecking this type of structure. R. Landry explained that the deck would have a rubberized membrane between the concrete and the asphalt wearing surface. The deck is designed for 75 years, but NHDOT's oldest boxes are only about 10 years old. The butted-boxes are very rigid.

An attendee mentioned that during the flood event in October 2005, bridge distress caused the police to close the bridge 3 hours before the surge of water collapsed the bridge. R. Landry explained that the River Restoration group would like the full bank width restored for this reason.

An attendee asked if a fire suppression system would be required for the Bensonwood proposal. R. Landry is unsure because the Bensonwood proposal is so different from traditional covered bridges.

An attendee asked if the Bensonwood proposal targeted the same 75 year lifespan desired by NHDOT. D. McElroy answered that the Bensonwood proposal has the same life expectancy goals.

An attendee said that a 2-span arch was not necessary at this site, but supported a single span arch. R. Landry explained that single-span arches are not available in the length or proportion that would fit at this site.

An attendee expressed frustration that they were not sure what the Bensonwood proposal actually looked like, since Bensonwood's presentation featured two bridges, different in style from each other, that were both longer than what is needed for this site. R. Landry said that the options would be refined.

An attendee, who was also at the previous meeting, recalls discussions about the vulnerability of the 2-span arch. He has heard enough to say that the double arch is an unwise solution.

An attendee asked if the structure selection will be decided by the hearing commission, as opposed to a vote. R. Landry explained that the citizens are one part of the solution. NHDOT will consider the input of the citizens, the interests of the motoring public including the trucking industry and the taxpayers, and the concerns of the resource agencies. The selection will not be decided by a vote.

R. Landry expressed his thanks to attendees and mentioned that comments could be sent to his attention through the mail.

Submitted by:

David Scott, P.E.

BLR/DS/kjr

NOTED BY: R. Landry, J. Tremblay, and K. Nyhan
cc: Town of Walpole, District 4, and Bill Cass

